STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

NANPA, on behalf of the Illinois Telecommunications Industry,	)	
	)	Docket No. 00-0677
Petition for Approval of Numbering Plan Area Relief Planning for the 618 Area Code	)	

DIRECT TESTIMONY OF CASSIE YANG

AMERITECH ILLINOIS EXHIBIT 1.0

00-0677
Ameritech 1.0
9/26/01

AUGUST 22, 2001

Introduction and Background Information

Q. Please state your name and business address.

A. Cassie Yang, 23500 Northwestern Highway, Room E201, Southfield, Michigan, 48075.

Q. By whom are you employed and in what capacity?

A. I am employed by Ameritech/SBC Network Services as Area Manager, Network Regulatory.

Q. Please describe your duties and responsibilities in this position.

A. I am responsible for area code relief planning and implementation and policy development for numbering issues on both the state and federal levels.

Q. Please describe your professional and educational background.

A. I have been employed by Ameritech/SBC since May 20, 1996 in the network services organization. My first assignment was a management position supervising telecommunications specialists who coordinated the installation, maintenance and repair of special services circuits for interexchange carriers. In November 1997, I was appointed Manager, Number Planning for Illinois. In that position, I coordinated industry relief planning meetings until those responsibilities transitioned to a third party numbering administrator. My responsibilities also included internal implementation activities. This position was expanded in January 2000 to include area code relief and numbering policy issues for all five Ameritech states and the Southern New England Telephone area. The position was

further expanded in December 2000 to include the five original Southwestern Bell states. Prior to joining Ameritech, I worked briefly as a summer intern for Nortel Wireless Networks. I received a bachelor's degree from the University of South Carolina in 1990 and a master's degree in business administration from Indiana University in Bloomington, Indiana in 1996.

Q. Have you previously testified before this Commission?

A. Yes, I presented testimony in Docket No. 98-0497 representing Central Office Code Administration prior to the transition of those responsibilities to a neutral third party administrator.

Purpose of testimony

Q. What is the purpose of your testimony in this proceeding?

A. On October 19, 2000, NeuStar, Inc. in its role as North American Numbering Plan Administrator ("NANPA") filed a Petition for area code relief for the 618 NPA. Based upon industry consensus reached in a meeting NANPA hosted in Springfield, Illinois on September 6, 2000, NANPA recommended implementation of an all-services overlay and provided a recommended timetable for that implementation. In my testimony I will present Ameritech Illinois' position on the NANPA Petition, particularly with respect to the form of area code relief that should be implemented and the timing of that relief. In accordance with the Administrative Law Judge's ruling on July 27, 2001, my testimony will be limited to those subjects.

Status of 618 NXX code exhaust

Q. What is the current status of the 618 NPA with respect to NXX code exhaust?

A. According to the Supplement to the Direct Testimony filed by Frank Colaco of NeuStar on April 6, 2001, there were 116 NXX codes remaining available for assignment as of March 2001. Under the final jeopardy procedures implemented by NANPA, the remaining NXX codes are being rationed at the rate of seven NXX codes per month. Assuming the assignment of seven NXX codes per month, there would be approximately 81 NXX codes available for assignment at the end of August 2001. However, in an industry conference call on July 10, 2001, carriers agreed to return four NXX codes and the industry agreed that at least 13 previously unassignable codes should be released for assignment. It is possible that a few additional codes may have been returned since the July conference call. These steps have increased the quantity of available NXX codes. As of August 21, 2001, the NANPA web page listed 101 NXX codes as "vacant" in the 618 NPA. At the rate of seven NXX codes per month, the 618 NPA would experience code exhaust in approximately October 2002.

Q. Are there any variable factors, which may affect exhaust?

A. Yes. The final exhaust date may vary depending upon a number of factors, including the rate of growth in number assignments to end users (which could lead to carrier and paging company demand for growth

codes), the number of new carriers entering the market, whether number pooling is implemented in the 618 NPA in 2002 as part of the FCC-directed national rollout, whether carriers are allowed to continue to request NXX codes that are assigned to rate centers in which the carrier does not provide local exchange service ("virtual NXXs"), and whether Staff and the Commission are able to reclaim any NXX codes that are not being utilized or properly utilized.

Ameritech recommendation as to the form of area code relief

Q. What is Ameritech Illinois' recommendation on the form of area code relief that should be implemented in the 618 NPA?

A. Ameritech Illinois supports the industry consensus recommendation for an all-services overlay covering the same geographic area currently served by the 618 area code.

Q. What are the advantages of implementing an all-services overlay relief plan in the 618 NPA as opposed to a geographic split?

A. There are multiple advantages to implementing an all-services overlay. First, all customers are allowed to keep their existing telephone numbers. Second, overlays are the best long-term relief plan since future relief has minimal, if any, impact on customers. Third, an overlay would preserve the current geographic identity of the 618 NPA and simply add a second area code in the same geographic area. Fourth, an overlay does not divide existing communities of interest such as school districts and local governments with new area code boundaries. Fifth, wireless carriers

would not be required to reprogram their customers' handsets at significant cost and inconvenience. Sixth, an overlay results in a more efficient utilization of area codes, NXX codes and telephone numbers. Seventh, future area code relief is simpler to implement in an overlay environment. Eighth, an overlay can be implemented with a much shorter lead-time than a geographic split.

Q. How important is it that customers are allowed to keep their existing telephone numbers?

A. With a geographic split, approximately 50% of customers receive the new area code and must notify friends and family of their new telephone numbers. For businesses, the consequences are more significant. They must change their stationery, signage and advertising materials to reflect the new area code, and this can often be a very significant expense. With an overlay, the potential for lost calls (and, therefore, lost business) because a customer dials the old number is eliminated. This includes eliminating mis-dialed calls not only from local customers but mis-dialed calls from national and international locations as well.

Q: Why does an overlay provide the best long-term relief plan?

A. Adjustment to the new ten-digit dialing pattern is only required with the first overlay in a geographic area. Future overlay area code relief is seamless and essentially invisible to most customers. If necessary, a new area code is placed over the relevant area code. Again, current numbers need not change. With a split by contrast, future relief will always require a

Commission decision on which communities should be split and which customers will become "losers" and require telephone number changes.

Q. Why does an overlay result in a more efficient use of telephone numbers, NXX codes, and area codes?

A. Overlays permit the assignment of numbering resources to the areas in the relevant geography where demand is growing at the fastest rate. If demand slows in the initial high-growth areas and increases elsewhere, the numbering resources can easily, and without disruption to customers, be allocated to where the demand has shifted. A split provides no such flexibility, as the new area code can be utilized only on one side of the split line. While the goal is to split the existing area code as equally as possible in terms of future demand for numbers, political realities, technical constraints and the inability to accurately predict future growth patterns typically result in one of the two area codes exhausting again well before the other. One area code may have a shortage of available NXX codes or telephone numbers, while the other may have many unused NXX codes or telephone numbers. The result is the inefficient utilization of telephone numbers and central office codes. Likewise, as additional relief is required for both split areas, two additional area codes are required for new split relief, while an efficient application of numbering resources with an overlay will only require one new area code over the existing geographic area.

Q. Is 10-digit dialing difficult for customers to learn?

A. No. While customers will need some education about 10-digit local dialing instead of 7-digit dialing, experience in other states such as Ohio shows that customers adapt easily to 10-digit dialing after getting through the initial implementation phase. Furthermore, it has been SBC's experience in Houston and Dallas that once an overlay has been implemented, subsequent relief in the form of another overlay plan has proven to cause less customer confusion than earlier splits. Additionally, once an overlay is implemented and mandatory 10-digit dialing is introduced, existing customers will not again have to be exposed to the requirement of changing their telephone numbers – as long as overlays continue to be the subsequent relief method.

Q. What is the advantage of the shorter lead-time associated with an all-services overlay?

A. A principal advantage of the shorter lead-time associated with an all-services overlay is that it allows the maximum opportunity to delay exhaust of the existing area code through number conservation, number pooling and code reclamation.

Q. What are the disadvantages of the all-services overlay?

A. The principal disadvantage of an all-services overlay is that the FCC requires mandatory ten-digit dialing for all calls, including local calls, within both the existing and overlay NPAs. Another disadvantage is that in rare situations, customers eventually may end up with different area codes for different lines within the same premises.

Q. What are the advantages of a geographic split?

A. The principal advantages of a geographic split are that there is only one area code serving a discrete geographic area and seven-digit dialing is preserved within that area code. However, the increased introduction of new area codes nationwide and the pervasiveness of toll-free 800 services has accustomed customers to dialing 10-digits for an ever-increasing percentage of their calls. As geographic splits divide geographic areas and further split communities, more and more customers will need to learn and dial the area codes to reach businesses and friends in the other split areas. Also, as more and more customers use wireless services for region-wide and nationwide service, a greater percentage of their calls become 10-digit calls.

Q. What are the disadvantages of a geographic split?

A. Approximately 50% of customers receive a new area code. Businesses must change their stationery, signage and advertising materials and notify their customers of their new telephone numbers. Residence customers must notify their friends and relatives of their new numbers. The new area code boundaries may divide existing communities of interest and drawing these boundaries (as well as deciding who gets to keep the existing area code) can be a contentious and politically divisive process. A geographic split is more time-consuming for the industry to implement and may lead to an inefficient use of numbers if the demand for NXX codes grows at different rates in the two area codes. Finally, a geographic split requires a

much longer lead-time than an overlay, and once implementation begins, it is very difficult to reverse that decision.

Q. What lead-time does a geographic split require?

A. A geographic split should be approved and announced to the industry and the public with a fixed implementation date at least eighteen months prior to final implementation. Geographic splits have been implemented in shorter time frames in emergency circumstances, but this increases the risk of service disruptions and causes greater inconvenience to the public.

Q. Why are these long lead-times required?

A. A long lead-time is necessary for several reasons. First, approximately 50% of the customers in the existing area code will receive the new area code. These customers include businesses; governmental bodies; community, religious and social organizations; and individual customers. These entities and individuals deserve as much lead-time as possible to work off their existing inventories of stationery and advertising materials that contain the old area code, to modify their signage, and to otherwise prepare for the new area code. Because customers are immediately affected when the area code is announced and need to know the final implementation date at the commencement of the process, the announcement of an area code split should be considered irreversible.

Second, once the new area code and its boundaries are announced, telecommunications carriers and paging companies must reprogram their central office switches to recognize the new area code

and to route calls dialed using that area code to the appropriate customer. For incumbent LECs with multiple central office switches, this network provisioning work easily can take several months. Additionally, Ameritech Illinois' customer care and billing systems require seven separate projects to implement split relief where only one project is required with an overlay.

Third, once the initial reprogramming is complete, there must be a permissive dialing period in the geographic area served by the new area code during which calls will be completed whether the customer dials the old area code or the new area code. During this permissive dialing period, customers must reprogram their PBXs, automatic dialers and other equipment for the new area code, alarm companies must reprogram their alarm dialers on customer premises, and wireless carriers must reprogram their customers' handsets. To avoid service disruptions and potentially serious adverse consequences, the permissive dialing period needs to be as long as possible.

Fourth, once the new area code is fully implemented for a split relief plan, there should be a several month aging period before numbers are assigned in the new area code that duplicate the same seven-digit number in the old area code. Likewise, this same aging process is required prior to reassigning numbers in the old area code that duplicate the same seven-digit number in the new area code. This is necessary to cut down on the number of misdialed calls that inevitably occur when customers in

the new area code attempt to call acquaintances in the old area code without dialing the area code.

Q. Why does Ameritech Illinois believe that, on balance, the all-services overlay presents the best solution for customers in the 618 NPA?

A. On balance, Ameritech Illinois believes that the substantial benefits of an all-services overlay outweigh the disadvantages of mandatory 10-digit dialing and multiple area codes in the same geographic area. We also believe that the substantial disadvantages to customers make a geographic split undesirable when alternative relief plans are available.

Q. When should the all-services overlay be implemented for the 618 NPA?

A. The consensus reached at the industry meeting on September 6, 2000, was that permissive intra-NPA ten-digit dialing should begin on July 14, 2001, and that mandatory ten-digit dialing should begin on the Saturday nearest the date which is 120 days after the assignment of the twenty-first remaining 618 CO code and which meets the following criteria: (1) the implementation will not occur on any date between Thanksgiving and January 10; (2) the implementation will not occur the weekend of any network critical holiday; and (3) the implementation will not occur on the same weekend as any other mandatory dialing change affecting any local exchange carrier having in excess of 100,000 facility-based access lines in the 618 NPA. Ameritech Illinois supports this recommendation.

Q. Could you please explain the rationale for this implementation schedule?

A. Yes. Permissive 10-digit dialing is beneficial to customers because it allows them to modify their on-premise communications equipment and automatic dialers for ten-digit dialing well before the mandatory ten-digit dialing date. For manually dialed calls, customers also can begin dialing all calls with ten-digits on a voluntary basis in order to become accustomed to this method of dialing before it becomes mandatory. Current dialing patterns are also maintained during the transition period. Permissive ten-digit dialing is particularly helpful to alarm companies because it allows them a long lead time to modify alarm dialers on customer premises to dial ten-digits for local calls to the central alarm reporting stations or emergency services. Since there is no downside to permissive ten-digit dialing, it should begin as soon as possible.

With respect to mandatory ten-digit dialing, the goal is to provide the public and the industry with approximately four months advance notice of a date certain for the implementation of mandatory ten-digit dialing. Having a date certain four months in advance will facilitate customer and industry planning and will allow reasonable time for customer education. Since NANPA is currently rationing 618 NXX codes at the rate of seven per month, picking a date 120 days after the date that the NXX code inventory falls below 21 means that the first NXX code in the overlay NPA is likely to be assigned on or about the time that mandatory ten-digit dialing begins, which would be in compliance with FCC requirements.

As to the other criteria, mandatory ten-digit dialing should not be commenced during the Christmas holiday season or on a network critical holiday (such as Mother's Day) because the heavy call volumes during these periods would exacerbate customer confusion during the cutover to mandatory ten-digit dialing. Also, because of the sheer amount of network programming required by carriers with multiple central office switches and the finite supply of programmers, mandatory ten-digit dialing should not be implemented on the same weekend as any other mandatory dialing change.

Q. If the Commission were to approve a geographic split relief plan instead of an overlay, when should the geographic split be implemented?

A. Implementation of a geographic split should begin immediately after issuance of the Commission's order. As I explained earlier, a geographic split requires a long lead-time, preferably eighteen months or more. Since the 618 NPA is expected to exhaust in less than eighteen months, implementation of a geographic split would need to begin immediately on an expedited basis.

Q. Does this conclude your direct testimony on the issues presented?

A. Yes.

STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

NANPA, on behalf of the Illinois Telecommunications Industry,	)	
	)	Docket No. 00-0677
Petition for Approval of Numbering Plan Area Relief Planning for the 618 Area Code	)	

AFFIDAVIT OF CASSIE YANG

I, Cassie Yang, on oath state that if I were called as a witness in this proceeding, I could testify from personal knowledge to the following facts:

1. The Direct Testimony of Cassie Yang, Ameritech Illinois Exhibit 1.0, consisting of 14 pages including cover page, to which this affidavit is attached, is my direct written testimony in this proceeding.

2. Ameritech Illinois Exhibit 1.0 was prepared by me or under my supervision and control.

3. If I were called as a witness and asked each of the questions in Ameritech Illinois Exhibit 1.0, my answers would be the same as written therein.

4. The testimony contained in Ameritech Illinois Exhibit 1.0 is true and correct to the best of my knowledge, information and belief.

C Yang-Cobb 9/24/01
Cassie Yang

Subscribed and sworn to
before me this 24th day of
September, 2001.

BRADLEY E. CHARTIER
Notary Public, Washtenaw County, Michigan
My Commission Expires September 12, 2003